IN THE CLAIMS:

Please cancel claims 11, 12, 13, 14 and 16. Claims 4 and 5 were previously cancelled.

Please amend claims 15 and 17 through 20. Claims 17-20 are now dependent on the amended claim 15.

Claims 1-3 and 6-10 have been allowed, while claims 15-19 have been previously objected to -- but are now re-written.

1. (Previously Presented) In a computer system including at least two server nodes, each of which can execute clustered server software, a method for providing data to restore clustering, said method comprising the steps of:

(a) comparing a current configuration data to a previous configuration data in an initialization phase which includes the steps of:

(a1) gathering previously stored data for a first one of said server nodes, and setting a flag to start with an installation phase if said previously stored data does not exist;

(a2) gathering current state data for said first server node;

(a3) comparing said current state data to said previously stored data, and setting said flag to start with said installation phase if discrepancies exist;

(a4) gathering companion node data for said first server node;

(a5) determining if said flag has been seen to start with an installation form, said installation form to permit a user to specify data to use in installing clustering software, and if so;

(a6) displaying said installation form;

(b) comparing said current configuration data to a standard configuration data in an installation phase which includes the steps of:

(b1) allowing a user to change said current state data;

(b2) comparing said current state data with established guidelines for clustering and reporting discrepancies to said user;

(b3) determining if a second one of said server nodes is known by a first server node, and if so;

(b4) specifying said second server node as a companion node;

(b5) comparing configuration data of first server node with configuration data of said second server node;

(b6) allowing said user to make corrections to said configuration data of first server node and said configuration data of second server node if discrepancies exist;

(b7) saving said configuration data of first server node and said configuration data of second server node;

(b8) displaying a diagnostics form;

(c) comparing a set of operations to a standard clustering functionality in a diagnostics phase;

(d) displaying a set of results in a results phase.

2. (Original) The method as in Claim 1 wherein said data to restore clustering is provided when clustering services fail.

3. (Original) The method as in Claim 1 wherein said installation phase further includes the step of installing clustered software on said computer system.

4.   (Cancelled).

5.   (Cancelled).

6. (Previously Presented)   The method as in Claim 1 wherein said diagnostics phase includes the steps of:

(a)   allowing a user to specify a companion node;

(b)   allowing a user to specify a diagnostics test level;

(c)   allowing a user to specify a set of test categories;

(d)   allowing a user to specify a method of interaction between said computer system and said user;

(e)   sequentially running a set of tests;

(f)   running a set of tests for environmental rules if selected;

(g)   running a set of tests for cluster communication if selected;

(h)   running a set of tests for shared resources if selected;

(i)   displaying a results form.

7. (Previously Presented)   The method as in Claim 6 wherein said step (f) of running said set of tests for environmental rules includes the steps of:

> (f1) testing saved configuration data between a first server node and said configuration data of said first server node;

> (f2) testing saved configuration data between said first server node and said configuration data of a second server Node.

8. (Previously Presented) The method as in Claim 6 wherein said step (g) of running said set of tests for cluster communication includes the steps of:

> (g1) testing an ability for a first server node to communicate with a second server node via all network connections marked as private;

> (g2) testing an ability for a first server node to communicate with a second server node via all network connections marked as public;

> (g3) testing an ability for a first server node to communicate with a second server node via all network connections marked as both private and public;

> (g4) testing an ability for a first server node to communicate with a controller node;

> (g5) testing an ability for a first server node to execute commands on said second server node.

9. (Previously Presented) The method as in Claim 6 wherein said step (h) of running said set of tests for shared resources includes the steps of:

(h1) testing an ability for a first server node to utilize a shared storage device for arbitrating operation of said computer system;

(h2) testing an ability to reset and reserve a SCSI bus for said shared storage device.

10. (Previously Presented) The method as in Claim 1 wherein said results phase includes the steps of:

(d1) allowing a user to view all diagnostics;

(d2) allowing a user to view diagnostics producing errors;

(d3) allowing a user to view diagnostics producing errors or warnings;

(d4) allowing a user to traverse a collection of diagnostics;

(d5) allowing a user to save said collection of diagnostics to a log file.

11. (Cancelled).

12. (Cancelled).

13. (Cancelled).

14. (Cancelled).

15. (Currently Amended)   A Computer Readable Media encoded with machine-readable computer program code utilizing a method for providing data to restore clustering between a first server node and a second server node, wherein, when a computer system executes the computer program code, the computer performs the steps of: [[The method as in Claim 11 wherein said installation phase includes the steps of:]]

> (a) comparing a current configuration data to previous configuration data in an initialization phase;
>
> (b) comparing said current configuration data to a standard configuration data in an installation phase wherein said installation phase includes the steps of:
>
>> (b1) [[(a)]] allowing a user to access and change current state data;
>>
>> (b2) [[(b)]] comparing said current state data with established guidelines for clustering and reporting discrepancies to said user;
>>
>> (b3) [[(c)]] determining if a second one of said server nodes is known by said first server node, and if so;
>>
>> (b4) [[(d)]] specifying said second server node as a companion node;
>>
>> (b5) [[(e)]] comparing configuration data of first server node with configuration data of said second server node;

(b6) [[(f)]] allowing a user to make corrections to said configuration data of first server node and said configuration data of second server node if discrepancies exist;

(b7) [[(g)]] saving said configuration data of said first server node and said configuration data of said second server node;

(b8) [[(h)]] displaying a diagnostics form.

(c) comparing a set of operations to a standard clustering functionality in a diagnostics phase wherein said diagnostics phase includes the steps of:

(c1) [[(a)]] allowing a user to specify a companion node;

(c2) [[(b)]] allowing a user to specify a diagnostics test level;

(c3) [[(c)]] allowing a user to specify a set of test categories;

(c4) [[(d)]] allowing a user to specify a method of interaction between said computer system and a user;

(c5) [[(e)]] sequentially running a set of tests;

(c6) [[(f)]] running a set of tests for environmental rules if selected;

(c7) [[(g)]] running a set of tests for cluster communication if selected;

(c8) [[(h)]] running a set of tests for shared resources if selected;

(c9) [[(i)]] displaying a results form.

(d)   displaying a set of results in a results phase.

16.   **(Cancelled).**

17. (Currently Amended) The method as in Claim [[16]] 15 wherein said step [[(f)]] (c6) of running said set of tests for environmental rules includes the steps of:

(c6a) [[(f1)]] testing a saved configuration between said first server node and said configuration data of said first server node;

(c6b) [[(f2)]] testing a saved configuration between said first server node and said configuration data of said second server node.

18. (Currently Amended) The method as in Claim [[16]] 15 wherein said step [[(g)]] (c7) of running said set of tests for cluster communication includes the steps of:

(c7a) [[(g1)]] testing an ability for said first server node to communicate with said second server node via all network connections marked as private;

(c7b) [[(g2)]] testing an ability for said first server node to communicate with said second server node via all network connections marked as public;

(c7c) [[(g3)]] testing an ability for said first server node to communicate with said second server node via all network connections marked as both private and public;

(c7d) [[(g4)]] testing an ability for said first server node to communicate with a controller node;

(c7e) [[(g5)]] testing an ability for said first server node to execute commands on said second server node.

19. (Currently Amended) The method as in Claim [[16]] 15 wherein said step [[(h)]] (c8) of running said set of tests for shared resources includes the steps of:

(c8a) [[(h1)]] testing for an ability for said first server node to utilize a shared storage device for arbitrating operation of said computer system;

(c8b) [[(h2)]] testing for an ability to reset and reserve a SCSI bus for said shared storage device.

20. (Currently Amended) The method as in Claim [[11]] 15 wherein step (d) of displaying said results phase includes the steps of:

(d1) allowing a user to view all diagnostics;

(d2) allowing a user to view diagnostics producing errors;

(d3) allowing a user to view diagnostics producing errors or warnings;

(d4) allowing a user to traverse a collection of diagnostics;

(d5) allowing a user to save said collection of diagnostics to a log file.